

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. W A D 9 8 0 7 3 8 5 4 6 7 9 0 0 6		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.					
3. Generator's Name and Mailing Address ALASKAN COPPER WORKS P.O. Box 3546, Seattle, WA 98124						A. State Manifest Document Number							
4. Generator's Phone (206) 623-5501						B. State Generator's ID							
5. Transporter 1 Company Name MC NOTTINGHAM CO OF SO CA.						C. State Transporter's ID							
6. US EPA ID Number I C A D 0 5 9 2 4 0 7 1 3						D. Transporter's Phone (909) 623-3264							
7. Transporter 2 Company Name						E. State Transporter's ID							
8. US EPA ID Number						F. Transporter's Phone							
9. Designated Facility Name and Site Address World Resources Company 8113 West Sherman Street Phoenix, Arizona 85043						G. State Facility's ID							
10. US EPA ID Number A Z D 9 8 0 7 3 5 5 0 0						H. Facility's Phone 800-972-1955							
11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)						12. Containers		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.	
a. RM, Hazardous waste, solid, n.o.s., (F006), 9, NA3077, III						001 CF		01563		P		F006	
b. RM, Hazardous waste, solid, n.o.s., (D007), 9, NA3077, III						031 DM		22370		P		D007	
c.													
d.													
J. Additional Descriptions for Materials Listed Above						K. Handling Codes for Wastes Listed Above							
15. Special Handling Instructions and Additional Information 24 Hour Emergency Response: 1-800-424-9300 CHEMTREC (Emergency call pager #206-648-8423) (Use CHEMTREC company code "WORK") Wear gloves & goggles P.O. #M62349													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.													
Printed/Typed Name GERALD A. Thompson						Signature <i>[Signature]</i>				Month Day Year 08 03 99			
17. Transporter 1 Acknowledgement of Receipt of Materials													
Printed/Typed Name JAY ROY RELPH						Signature <i>[Signature]</i>				Month Day Year 08 03 99			
18. Transporter 2 Acknowledgement of Receipt of Materials													
Printed/Typed Name						Signature				Month Day Year			
19. Discrepancy Indication Space													
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.													
Printed/Typed Name						Signature				Month Day Year			

PRINTED ON RECYCLED PAPER
USING SOYBEAN INK

GENERATOR COPY

**WORLD RESOURCES COMPANY**

P H O E N I X , A R I Z O N A

Recycling for a healthier environment

**LAND DISPOSAL
RESTRICTION NOTICE****D007**

EFFECTIVE 11/09/98

[A copy of this Notice must be retained by the Generator for at least three (3) years, pursuant to U.S. EPA Regulation 40 CFR §268.7(a)(8).

Moreover, the Generator should check the hazardous-waste regulations of his/her own State, inasmuch as, if there is a State analogue to the federal regulation, it may require a longer retention time, such as five (5) years. It should also be noted that the federal regulation—and, typically, State analogues as well—requires the retention period to be extended further in specified cases.]

TO: **WORLD RESOURCES COMPANY**

8113 West Sherman Street, Phoenix AZ 85043-3000

FROM:

ALASKAN Copper Works
[COMPANY NAME]**628 Hanford ST Seattle WA 98134**
[COMPANY ADDRESS]MANIFEST
NUMBER:**99006**DATE OF
SHIPMENT:**8-3-99**

This shipment of material is subject to the land disposal restrictions of 40 CFR Part 268. The applicable land disposal restriction information, provided in accordance with 40 CFR §268.7(a)(2), is as shown in this table:

EPA Material Number	Treatability Group	CFR Reference for Treatment Standards
D007	non-wastewater	40 CFR §268.40

SIGNATURE:

TITLE:

ENVIRONMENTAL TechNAME
PRINTED:**GERALD A. Thompson**

DATE:

8-3-99**Instructions for the Completion of this Land Disposal Restriction Notice [LDRN]**

This LDRN has been prepared based on a listed material--D007--as the primary designation of the material. This designation is based on information furnished by the Generator of the material. While it is believed to be accurate, it is the Generator's responsibility to determine whether his/her material is restricted from land disposal, and to correctly complete the LDR Notice [as stated in 40 CFR §268.7(a)(2)].

If your material is described by additional "D" characteristic EPA waste codes, then they must each be included on the LDR Notice.

Material Safety Data Sheet

D007 Recyclable Material

Recycler's Facility Name and Site Address:

World Resources Company

8113 West Sherman Street

Phoenix, Arizona 85043

Tel: 1-602-233-9166 Fax: 602-936-9164

Issued: 3/18/94

Call CHEMTREC only in the event of emergencies during shipping that involve a spill, leak, fire, or accident (all calls are recorded)

For Emergencies During Shipping in the US or Canada, Day or Night,

Call: CHEMTREC 800-424-9300

(Use CHEMTREC Company Code "WOCR")

For calls from other countries call:

202-483-7616 Collect

Section 1

PRODUCT - MATERIAL IDENTIFICATION

Environmental Protection Agency (EPA) Waste Classification: D007

Generic Name: Chromium metal bearing sludge

Chemical Family: Non-Ferrous metal particulates

Synonym: Metallic Residues From High Frequency Burning Table

DOT Shipping Name: RQ, Hazardous Waste, Solid, n.o.s. (D007)

DOT Hazard Class: 9 ; Packing Group: III

DOT Identification Number: NA 3077

DOT Emergency Response Guide 31 Applies

Section 2

HAZARDOUS INGREDIENTS

Ingredient:	CAS Number:	Content %:	ACGIH-TLV	Toxicology:
Aluminum	7429-90-5	0-5	10 mg/m ³	No Data Available
Chromium	7440-47-3	0-15	0.5 mg/m ³	2.75 mg/kg (Rat, Oral)
Copper	7440-50-8	0-10	1.0 mg/m ³	0.35 mg/kg (Mouse, Oral)
Nickel	7440-02-0	0-10	1.0 mg/m ³	No Data Available
Zinc	7440-66-6	0-5	none established	No Data Available

Section 3

PHYSICAL AND REACTIVITY DATA

Description: Moist, Sandy consistency

Brown to Black colored

Water Content 10-20% by weight

Specific Gravity: 2.0 to 3.0

Solubility: Insoluble in water

Density: 100 to 150 lbs/cu/ft

Incompatible Reactivity: Extreme heat sources, Oxidants

Vapor Pressure: Insignificant

Stability: Avoid contact with acids, extreme heat

Polymerization: Will not occur

Boiling Point: Above 2000°C

Melting Point: Above 1000°C

pH: 7.0 to 10.0

Odor: Nil

Section 4

FIRE AND EXPLOSION DATA

Flashpoint: Nonflammable, under normal conditions

Oxidation: Non-oxidizing

Special Firefighting Procedures: Dry Chemical

Explosive: Non-explosive

Product Decomposition... (Due to Fire or Explosion): Hydrogen gas, ZnO (under extreme external heat)

NFPA

Fire Diamond



Section 5

TOXICITY

Listed Carcinogen component: Chromium, Nickel Toxicology: See Sec. 2 (Chromium, Nickel) Route of Entry: Inhalation and Ingestion

Section 6

HEALTH EFFECTS AND FIRST AID

Inhalation: Dust may irritate mucous membranes and upper respiratory tract. Remove to fresh air and treat symptoms.

Ingestion: Rare in industry. Induce vomiting (do not induce vomiting or give a liquid to an unconscious person) and call a physician.

Eyes: Dust may irritate eyes. Wash with copious amounts of water for 15 minutes, if effects persist, call a physician.

Skin: Dust may irritate skin, causing forms of eczema. Wash with soap and water.

Long-Term Effects: Chronic overexposure may affect the following target organs or body systems—blood, digestive, respiratory, lungs, liver, kidneys and skin.

Comments: Special attention should be given to employees with anemia, restricted respiratory abilities, lung cancer, permanent kidney damage and metal-sensitive skin or skin lesions.

Section 7

PRECAUTIONS FOR SAFE HANDLING

Handling: Good personal and industrial hygiene should always be practiced. It is recommended that personal protective equipment be used by personnel who will come in contact with the material. The equipment should include eye protection, respirator and gloves.

Storage: Keep covered and avoid conditions where wind could cause dispersal. Do not eat, drink or smoke where material is handled to avoid inhalation or ingestion. Store in a dry area under cover from rain.

Spills: Cleaning procedures should not create excessive dust. Vacuum when possible. Package material and send to World Resources Company at above address.

Section 8

CONTROL MEASURES

Respiratory Protection: NIOSH-MSHA approved respirators as required.

Eye Protection: Safety Glasses recommended.

Other Protective Equipment: Coveralls are recommended, but not required.

Hand Protection: Gloves recommended.

Section 9

GENERATORS VERIFICATION

This MSDS is provided solely for informational purposes and no warranty or responsibility is extended even though reasonable precautions have been taken in the preparation of the data contained for this recyclable material. To the best of my knowledge this MSDS describes the recyclable material listed on the attached Manifest Number: 99006 Telephone: (206) 823-5800 Date: 8-3-99

Company Name and Address: Alaskan Copper Works 628 Hanford St. Seattle Wa 98134

Signature: [Signature]

MATERIAL IDENTIFICATION

DOT E... SHIPPING DESCRIPTION AND TECHNICAL NAME:
Hazardous waste, solid, n.o.s., (F006)

NORTH AMERICAN
EMERGENCY RESPONSE
GUIDEBOOK

TAKEN FROM GUIDE 171 OF THE NORTH
AMERICAN EMERGENCY RESPONSE GUIDEBOOK

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Some may burn, but none ignite readily.
- Some may polymerize (P) explosively when heated or involved in a fire.
- Containers may explode when heated.
- Some may be transported hot.

HEALTH

- Inhalation of material may be harmful.
- Contact may cause burns to skin and eyes.
- Inhalation of Asbestos dust may have a damaging effect on the lungs.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- CALL CHEMTREC at 1-800-424-9300 FOR EMERGENCY ASSISTANCE (Use CHEMTREC Company Code "W00R").
- Isolate spill or leak area immediately for at least 10 to 25 meters (30-80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO₂, water spray or regular foam.

Large Fires:

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Do not scatter spilled material with high pressure water streams.
- Dike fire-control water for later disposal.

Fire Involving Tanks:

- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from the ends of tanks.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent dust cloud.
- Avoid inhalation of asbestos dust.

Small Dry Spills

- With clean shovel, place material into clean, dry container and cover loosely; move containers from spill area.

Small Spills

- Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- Cover powder spill with plastic sheet or tarp to minimize spreading.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call emergency medical care.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.



WORLD RESOURCES COMPANY

PHOENIX, ARIZONA

Recycling for a healthier environment

LAND DISPOSAL RESTRICTION NOTICE

F006

EFFECTIVE 11/09/98

[A copy of this Notice must be retained by the Generator for at least three (3) years, pursuant to U.S. EPA Regulation 40 CFR §268.7(a)(8). Moreover, the Generator should check the hazardous-waste regulations of his/her own State, inasmuch as, if there is a State analogue to the federal regulation, it may require a longer retention time, such as five (5) years. It should also be noted that the federal regulation--and, typically, State analogues as well--requires the retention period to be extended further in specified cases.]

To:	WORLD RESOURCES COMPANY	8113 West Sherman Street, Phoenix AZ 85043-3000
From:	COMPANY NAME: Alaskan Copper Works	COMPANY ADDRESS: P.O. Box 3546, Seattle, WA 98124
MANIFEST NUMBER:	99006	DATE OF SHIPMENT: 8-3-99

This shipment of material is subject to the land disposal restrictions of 40 CFR Part 268. The applicable land disposal restriction information, provided in accordance with 40 CFR §268.7(a)(2), is as shown in this table:

EPA Material Number	Treatability Group	CFR Reference for Treatment Standards
F006	non-wastewater	40 CFR §268.40

SIGNATURE:		TITLE:	Environmental Tech
NAME PRINTED:	GERALD A. Thompson	DATE:	8-3-99

Instructions for Completion of this Land Disposal Restriction Notice [LDRN]

This LDRN has been prepared based on a listed material--F006--as the primary designation of the material. This designation is based on information furnished by the Generator of the material. While it is believed to be accurate, it is the Generator's responsibility to determine whether his/her material is restricted from land disposal, and to correctly complete the LDR Notice (as stated in 40 CFR §268.7(a)(2)).

An F006 designation on the LDRN *includes* the following constituents: cadmium (D006), chromium (D007), lead (D008), silver (D011), cyanide, and nickel. However, the designation does *not* include arsenic (D004), barium (D005), mercury (D009), or selenium (D010). If your F006 material contains any of those four constituents not included in the F006 designation, then use the following instructions.

In determining the need for any additional entries on the LDRN for the F006 material, the levels of arsenic, barium, mercury and selenium must be examined to determine if the levels equal or exceed the threshold concentrations of constituents for the Toxicity Characteristic limit as identified in 40 CFR §261.24 (Table 1), as shown in the left-hand column of the table below (as stated in 40 CFR §268.9).

If (after testing or based upon the generator's knowledge of the material) each metal level does not equal the Toxicity Characteristic level shown below, then *no additional entry* is required on the LDR Notice. If the level is known to be or determined to be equal to or above the limit shown below for any of these metals, then the appropriate information corresponding to that individual metal (in the right-hand column below) *must be added* to the LDR Notice.

REFERENCE INFORMATION TOXICITY CHARACTERISTIC		APPROPRIATE ENTRY ON LDR NOTICE		
Metal	Concentration Level	EPA Material Number	Treatability Group	CFR Reference for Treatment Standards
ARSENIC	5.0 mg/l	D004	non-wastewater	40 CFR §268.40
BARIUM	100 mg/l	D005	non-wastewater	40 CFR §268.40
MERCURY	.02 mg/l	D009	non-wastewater	40 CFR §268.40
SELENIUM	1.0 mg/l	D010	non-wastewater	40 CFR §268.40

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AZ001105

F006 GENERATORS

AKC-0017511

Material Safety Data Sheet

F006 Recyclable Material (Filter Cake)

Recycler's Facility Name and Site Address:

World Resources Company

8113 West Sherman Street
Phoenix, Arizona 85043-3000

Tele: 1-602-233-9166 Fax: 1-623-936-9164

Issued: 8/7/90
Revised: 9/18/96 DLS

Call CHEMTREC only in the event of
emergencies during shipping that
involve a spill, leak, fire, or accident
(all calls are recorded)

For Emergencies During Shipping in
the US or Canada, Day or Night,
Call: CHEMTREC 800-424-9300

(Use Chemtrec Company Code "W0RR")
For calls from other countries call:
202-483-7616 Collect

Section 1

PRODUCT MATERIAL IDENTIFICATION

Generic Name: Electroplating/Metal-Finishing Wastewater Treatment Sludge
Environmental Protection Agency (EPA) Waste Classification: F006

Chemical Family: Metallic (Hydroxide) Precipitates

Synonym: Non-ferrous Metal Hydroxide Filter Cake

DOT Shipping Name: RQ, Hazardous waste, solid, n.o.s., (F006)
DOT Hazard Class: 9; Packing Group: III

DOT Identification Number: NA 3077

Guide 171 of the North American Emergency Response
Guidebook Applies

Section 2

HAZARDOUS INGREDIENTS

Ingredient	CAS Number:	Content %:	ACGIH-TLV	Toxicology: (rat, oral)
Copper Hydroxide	20427-59-2	0-30	1.0 mg/m ³ (Dust)	LD-50 1,000 mg/kg
Nickel Hydroxide	12054-48-7	0-15	1.0 mg/m ³ (Dust)	LD-50 1,500 mg/kg
Calcium Hydroxide	1305-62-0	0-15	5.0 mg/m ³ (Dust)	LD-50 7,340 mg/kg
Diatomaceous Earth	68855-54-9	0-10	6.0 mg/m ³ (Dust)	LD-50 3,160 mg/kg

Section 3

PHYSICAL AND REACTIVITY DATA

Description: Solid, Clay-like Clumps,
Gray/Green to Brown,
Water Content 30-80%

Specific Gravity: 2.5 to 3.5

Solubility: Insoluble in water

Density: 64 to 90 lbs/cu ft

Incompatible Reactivity: None Known

Vapor Pressure: Insignificant

Stability: Avoid contact with acids

Polymerization: Will not occur

Boiling Point: Above 2600°C

Melting Point: Above 1800°C

pH: 7.0 to 10.0

Odor: Nil

Section 4

FIRE AND EXPLOSION DATA

Flashpoint: Nonflammable

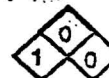
Special Firefighting Procedures: None

Product Decomposition: (Due to Fire or Explosion): None

Oxidation: Non-oxidizing

Explosive: Non-explosive

NFPA
Fire Diamond



Section 5

TOXICITY

Listed Carcinogen component: Nickel

Toxicology: See Sec. 2 (Nickel Hydroxide)

Route of Entry: Inhalation and Ingestion

Section 6

HEALTH EFFECTS AND FIRST AID

Inhalation: Dust may irritate mucous membranes and upper respiratory tract. Remove to fresh air and treat symptoms.

Ingestion: Rare in industry. Induces vomiting (do not induce vomiting or give a liquid to an unconscious person) and call a physician.

Eyes: Dust may irritate eyes. Wash with copious amounts of water for 15 minutes, if effects persist, call a physician.

Skin: Dust may irritate skin, causing forms of eczema. Wash with soap and water.

Long-Term Effects: Chronic overexposure may affect the following target organs or body systems—blood, digestive, respiratory, lungs, liver, kidneys and skin.

Comments: Special attention should be given to employees with anemia, restricted respiratory abilities, lung cancer, permanent kidney damage and metal-sensitive skin or skin lesions.

Section 7

PRECAUTIONS FOR SAFE HANDLING

Handling: Good personal and industrial hygiene should always be practiced. It is recommended that personal protective equipment be used by personnel who will come in contact with the material. The equipment should include eye protection, respirator and gloves.

Storage: Keep covered and avoid conditions where wind could cause dispersal. Do not eat, drink or smoke where material is handled to

Spills: avoid inhalation or ingestion. Store in a dry area under cover from rain.

Cleaning procedures should not create excessive dust. Vacuum when possible. Package material and send to World Resources Company at above address.

Section 8

CONTROL MEASURES

Respiratory Protection: NIOSH-MSHA approved respirators as required.

Other Protective Equipment: Coveralls are recommended, but not required.

Eye Protection: Safety Glasses recommended.

Hand Protection: Gloves recommended.

Section 9

GENERATOR'S VERIFICATION

This MSDS is provided solely for informational purposes and no warranty or responsibility is extended even though reasonable precautions have been taken in the preparation of the data contained for this recyclable material. To the best of my knowledge this MSDS describes the recyclable

material listed on the attached Manifest Number:

99006

Telephone: 206-382-8379

Date: 8-3-99

Company Name and Address:

Alaskan Copper Works P.O. Box 3546, Seattle, WA 98124

Signature:

Recycled Paper

AKC-0017512

MATERIAL IDENTIFICATION

DOT BASIC SHIPPING DESCRIPTION AND TECHNICAL NAME:

Hazardous waste, solid, n.o.s., (F006)

NORTH AMERICAN
EMERGENCY RESPONSE
GUIDEBOOK

TAKEN FROM GUIDE 17 OF THE NORTH
AMERICAN EMERGENCY RESPONSE GUIDEBOOK

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Some may burn, but none ignite readily.
- Some may polymerize (P) explosively when heated or involved in a fire.
- Containers may explode when heated.
- Some may be transported hot.

HEALTH

- Inhalation of material may be harmful.
- Contact may cause burns to skin and eyes.
- Inhalation of Asbestos dust may have a damaging effect on the lungs.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control may cause pollution.

PUBLIC SAFETY

- CALL CHEMTREC at 1-800-424-9300 FOR EMERGENCY ASSISTANCE (Use CHEMTREC Company Code "WORE").
- Isolate spill or leak area immediately for at least 10 to 25 meters (30-80 feet) in all directions.
- Keep unauthorized personnel away.
- Stay upwind.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing will only provide limited protection.

EVACUATION

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fires

- Dry chemical, CO₂, water spray or regular foam.

Large Fires:

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.
- Do not scatter spilled material with high pressure water streams.
- Dike fire-control water for later disposal.

Fire Involving Tanks:

- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from the ends of tanks.

SPILL OR LEAK

- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Prevent dust cloud.
- Avoid inhalation of asbestos dust.

Small Dry Spills

- With clean shovel, place material into clean, dry container and cover loosely; move containers from spill area.

Small Spills

- Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Large Spills

- Dike far ahead of liquid spill for later disposal.
- Cover powder spill with plastic sheet or tarp to minimize spreading.
- Prevent entry into waterways, sewers, basements or confined areas.

FIRST AID

- Move victim to fresh air.
- Call emergency medical care.
- Apply artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.